bilicus 3.3 mm.; 4½ whorls. Whetstone Range. Most specimens taken this year are larger than the type lot, collected by Ferriss and Daniels in 1914.

Sonorella insignis, n. sp. The shell is much depressed, rather solid, openly umbilicate. Band is broad with pale borders. Surface roughened by low wave-like ribs in the direction of growth-lines, and microscopic incised lines. Aperture small. Peristome very little expanded, blunt. Alt. 9.8, diam. 20.5 mm.; 4½ whorls. Whetstone Range. One of the finest Sonorellas collected in 1919, recalling *S. dalli* by its depressed form.

MOLLUSCA OF FORRESTER ISLAND, ALASKA.

Univalves (Continued from page 69).

BY GEORGE WILLETT.

Tornatina carinata Gld. *Tornatina culcitella* Gld. *Cylichna alba* Brown. These three species were taken occasionally in the dredge, the latter being the most uncommon.

Dentalium pretiosum Nutt. Very plentiful in 10–40 fathoms.

Dentalium dalli Pils. A few young specimens secured in 50 fathoms.

Limacina pacifica Dall. Appeared swimming in the water in great numbers at times during calm weather. Extensively eaten by several species of fish.

Siphonaria thersites Cpr. Abundant in some localities, mostly in short moss growing on the rocks considerably above low tide line.

Crassispira perversa Garb. Dredged occasionally in 40–50 fathoms.

Crassispira rotula Dall. More plentiful than the last in about same depth.

Crassispira (*Suavodrillia*) sp.? A specimen dredged is now in National Museum. Stated by Dr. Dall to be undescribed.

Mangilia oldroydi Arnold. *Mangilia eriopis* Dall. *Mangilia crebricostata* Cpr. A very few specimens of each of these three species were taken in the dredge.

Bela tabulata Cpr. *Bela fidicula* Gld. *Bela impressa* Beck. *Bela pyramidalis* Strom. The two former fairly common, the two latter rare, all being taken in dredge.

Taranis strongi Arnold. Fairly common in 45–70 fathoms. Dr. Dall informs me that my Forrester Island specimens are the first living ones known to science, the species having been described from fossils taken in California.

Cancellaria modesta Cpr. A few dredged in 40–50 fathoms. Taken in inside channels, between Dall and Prince of Wales islands, in less than 15 fathoms.

Cancellaria couthouyi Jay. Three dead specimens dredged in about 50 fathoms.

Olivella pedroana Conr. Very abundant 15–40 fathoms. Apparently much larger than along the California coast; many specimens being well over 20 mm. in length and correspondingly broad.

Volutella pyriformis Cpr. Dredged occasionally; taken at Waterfall, Prince of Wales Island, under rocks near low tide line.

Mitromorpha gracilior Hemp. A few taken in dredge.

Alectrion mendicus Gld. Common 15–25 fathoms.

Buccinum cyaneum Brug. Common under rocks in many localities well above low tide mark. Occasional on rock walls.

Buccinum plectrum Stimp. Dead shells dredged occasionally in 40–60 fathoms. Not taken alive.

Buccinum erronis Dall. Very few dead specimens taken in 50 fathoms.

Chrysodomus phoeniceus Dall. One dead shell taken in 40 fathoms.

Chrysodomus liratus Mart. One dead young shell dredged. Rather plentiful in some localities in inside waters.

Chrysodomus rectirostris Cpr. Fairly common 40–70 fathoms.

Beringius crebricostatus undatus Dall. A dead young specimen taken in 50 fathoms. Possibly brought to the locality by currents.

Columbella tuberosa Cpr. *Columbella gouldi* Cpr. Former rather common 10–30 fathoms, and latter common in about 50 fathoms.

Columbella californiana Gask. One living specimen taken from root of kelp washed ashore in storm. Common under rocks at Waterfall.

Amphissa corrugata Rve. Common on rocks near low tide line.

Amphissa versicolor reticulata Dall. Abundant 15–20 fathoms.

Purpura foliata Mart. Rather common on rocks near low tide line. Most specimens on Forrester Island are much worn by heavy seas.

Boreotrophon stuarti Smith. *Boreotrophon tenuisculptus.* Cpr. Both of these forms dredged occasionally in various depths, the latter the most plentiful.

Boreotrophon pacificus Dall. Occasional on rocks near low tide line, much more abundant at waterfall.

Ocinebra interfossa Cpr. *Ocinebra lurida aspera* Baird. Fairly common on rocks near low tide line.

Thais emarginata projecta Dall. Locally on rocks well up toward high tide mark. Extremely variable in color, running from gray through brown, purple and green into yellow and red. Practically all seem to have drawn-out spire typical of this form.

Thais lima Mart. *Thais canaliculata* Ducl. Both these species are common on the rocks near low tide line. The former is the more gregarious and appears to favor the smoother rocks, while the latter is more scattered and is found mostly among short moss or in mussel beds. *T. lamellosa* Gmel., abundant in inside waters, apparently does not occur on Forrester Island.

Epitonium wroblemski Morch. *Epitonium pluricostatum* Dall. Both dredged at various depths, the former common, the latter rare.

Epitonium gronlandicum Perry. Only noted from fragment dredged.

Epitonium indianorum Cpr. *Epitonium columbianum* Dall. *Epitonium catalinae* Dall. The first dredged quite commonly in 25–60 fathoms. The latter two taken in about same depths but much less frequently.

Melanella micans borealis Bartsch. *Melanella macra* Bartsch. *Melanella tacomaensis* Bartsch. Four specimens of the first,

three of the second and one of the last species, represent all the Melanellas taken during the four seasons spent on the island. They were all dredged.

Turbonilla lordi E. A. Smith. Dredged occasionally in 25–50 fathoms.

Turbonilla canadensis Bartsch (Proc. U. S. N. M., Vol. 52, p. 640). The type and eight more specimens dredged in 25–50 fathoms.

Odostomia satura Cpr. *Odostomia cookeana* Bartsch. *Odostomia amtchitkana* Dall. *Odostomia vancouverensis* D. & B. *Odostomia stephensi* D. & B. *Odostomia columbiana* D. & B. Specimens of all of these forms were dredged, though in small numbers. Satura and Amtchitkana were seemingly the most common. At Waterfall I also secured specimens of *O. talpa* D. & B., *grippiana* Bartsch, and *willetti* Bartsch (Proc. U. S. N. M., Vol. 52, p. 666).

Priene oregonense Redf. Common from the low tide line to about 15 fathoms. Specimens in former locality are shorter and heavier than those found in deeper water.

Cerithiopsis stephensae Bartsch. A few dredged. Specimens of two other, apparently unnamed, species were also taken.

Bittium filosum Gld. *Bittium attenuatum* Cpr. Common, the former a little above low tide line and the latter in 10–20 fathoms.

Alvania dinora Bartsch (Proc. U. S. N. M., Vol. 52, p. 678). The type and four additional specimens dredged.

Alvania carpenteri Wein. Dredged occasionally.

Rissoina newcombei Dall. Dredged with last.

Trichotropis cancellata Conr. Rather common from low tide line to about 20 fathoms.

Trichotropis conica Moll. Two specimens dredged in 50 fathoms. Dr. Dall informs me that this is the first record for the Pacific coast.

Caecum crebricinctum Cpr. Dredged abundantly in 20–30 fathoms.

Veremetus squamigerus Cpr. Abundant on rocks near low tide line.

Tachyrhynchus lacteolus Cpr. Rather common 50–60 fathoms.

Littorina scutulata Gld. *Littorina stitchana* Phil. The former not very common, the latter abundant and varying greatly in color.

Lacuna divaricata Fabr. Fairly common on rocks.

Calyptraea mamillaris Brod. Common in 15–25 fathoms.

Crepidula nivea Gld. *Crepidula dorsata* Brod. Neither very common, but found occasionally from low tide line to 30 fathoms. The young of the former species is frequently found on the operculum of Priene.

Natica clausa B. & S. Rather common 15–40 fathoms.

Lunatia pallida B. & S. Not rare in 50–60 fathoms.

Velutina laevigata Linn. Fairly common in spongy growth on rocks near low tide line.

Velutina cryptospira Midd. Found common only in one locality. A short distance off shore was a large rock with a crevice ten to fifteen ft. wide worn right through the center from one side to the other. The water in this crevice was deep and the walls nearly perpendicular. On these walls at about the extreme low tide mark were great numbers of Ascidians and in these cryptospira was found in abundance. Though it was seldom smooth enough to allow me to enter this crevice with a boat at extreme low tide, I was able to do so on two or three occasions and obtained a fine series of living specimens. Some of these were very large, one measuring 31 by 23 millimeters. I am very much averse to referring this and the next species to the genus Velutina, as in life they are so entirely dissimilar to *laevigata*, the type of that genus. In *laevigata* the shell is mossy and is, so far as I have seen, entirely bare, while in these two species the shell is smooth and completely covered by the animal. On the other hand, both the animal and shell differ markedly from the genus Lamellaria.

Velutina rubra, new species. Description. In life similar to *V. cryptospira* but animal bright vermilion in color (this color soon disappears in alcohol). Shell smaller than that of *cryptospira*, rounder and with only a trace of spire. The type measures 13½ mm. in length by 9 mm. in breadth. This type together with four additional specimens were taken on Forrester Island by the writer. Three of these specimens were found at

extreme low tide mark and the other two were dredged in 40 fathoms.

Lamellaria stearnsi Dall. Two living specimens taken from among *Velutina cryptospira.*

Acmaea persona Esch. *Acmaea pelta* Esch. *Acmaea patina* Esch. Abundant on rocks, the first being found in somewhat more exposed positions than the other two.

Acmaea instabilis Gld. Three living specimens were taken on stems of holdfast kelp at extreme low water line. One dead specimen also found, as well as a few fragments.

Lepeta concentrica Midd. Dredged rarely.

Molleria quadrae Dall. Two specimens dredged.

Leptothyra carpenteri Pils. Rather common on rocks.

Calliostoma costatum Mart. *Calliostoma annulatum* Mart. *Calliostoma variegatum* Cpr. The first was common on rocks near low water line, the second rather common from low water mark down to 20 fathoms, and the third was much less plentiful and taken only with the dredge in from 15–40 fathoms.

Margarites pupillus Gld. *Margarites helicinus* Fabr. *Margarites succinctus* Cpr. *Margarites laevior* Jeff. All rather common about low water mark. Over 900 of the latter species were taken from the craw of a surf duck (*Oidemia perspicillata*).

Tegula pulligo Mart. Fairly common along extreme low tide line.

Solariella peramabilis Cpr. Abundant in from 15–50 fathoms. Some specimens taken were very large, measuring over twenty millimeters in height.

Solariella cidaris A. Ad. Fairly common in from 30–50 fathoms.

Solariella obscura Couth. Seven specimens dredged in about 50 fathoms.

Halistylus pupoides Dall. Three specimens dredged.

Haliotis kamtchatkana Dall. Common at low water mark.

Puncturella multistriata Dall. *Puncturella cucullata* Gld. *Puncturella galeata* Gld. *Puncturella cooperi* Cpr. All four of these species were dredged in from 15–50 fathoms. *Culcullata* was also taken rarely at extreme low tide mark. *Multistriata* and *galeata* were rather rare.

Subemarginula yatesi Dall. It was a very pleasant surprise to find this species—previously known, I believe, only from near Monterey, California—occurring at Forrester Island. It was, however, quite rare and, though particularly sought for, only nine specimens were taken. Five of these were living when found and the other four dead. One small live one was taken at extreme low water mark and all the others were dredged in from 15–30 fathoms. The largest, a dead one, measures 77 x 57 millimeters.

Fissuridea aspera Esch. Common along low water line.

Megatebennus bimaculatus Dall. Fairly common on rock walls near low water mark. Largest measuring 18x13 millimeters.

Leptochiton cancellatus Sby. Dredged in 20 fathoms.

Tonicella lineata Wood. Adults common along low tide line. Young rather common in 15–20 fathoms.

Tonicella ruber Linn. *Tonicella submarmorea* Midd. Dredged in from 15–30 fathoms; the latter the most plentiful.

Cyanoplax raymondi Pils. *Schizoplax brandti* Midd. Common locally along low tide line, generally in crevices in rocks.

Ischnochiton interstinctus Gld. *Ischnochiton mertensi* Midd. Abundant at from 10–20 fathoms.

Ischnochston willetti Berry. (Proc. Cal. Acad. Sci., vol. 7, p. 236). *Ischnochiton trifidus* Cpr. Taken at about the same depth as the last but in much smaller numbers, *willetti* being fairly common and *trifidus* rare. *I. radians* was taken at Waterfall but not on Forrester.

Ischnochiton retiporosus Cpr. Occasional in from 15–50 fathoms, occuring in deeper water than any other chiton found in the locality.

Trachydermon flectens Cpr. A few dredged in from 15–30 fathoms.

Mopalia ciliata Gld. *Mopalia ciliata wosnessenskii* Midd. Fairly common from a little above low water line to about 15 fathoms. I find considerable difficulty in differentiating these two forms but Dr. S. S. Berry tells me that, while most of my specimens are referable to *wosnessenskii*, there are a few that are nearer true *ciliata*.

Mopalia hindsi Rve. *Mopalia lignosa* Gld. Rather rare on

rocks between tides. Seven specimens of the former and two of the latter were taken. All the former were exceptional in size, one measuring 90 x 45 millimeters.

Mopalia imporcata Cpr. *Mopalia sinuata* Cpr. Dredged in from 15–25 fathoms, the former fairly common, the latter rare.

Placiphorella velata Cpr. Only two specimens, both taken at extreme low tide line.

Placiphorella rufa Berry (Proc. Cal. Acad. Sci., vol. 7, p. 241). The type and about fifteen additional specimens of this new form were dredged in from 15–25 fathoms.

Katherina tunicata Sby. *Cryptochiton stelleri* Midd. The former abundant, the latter common between tides. The *Katherina* is eaten to a considerable extent by the natives.

LAND MOLLUSCS.

Circinaria vancouverensis Lea. Common.

Ariolimax columbianus Gld. Abundant in following colors: white, black, gray, yellow and mottled.

Polygyra columbiana Lea. Abundant.

Pupa (sp. ?). A single Pupa was seen in a dead spruce cone. It was lost before being identified.

A NEW CAMAENA FROM THE PHILIPPINE ISLANDS.

BY WM. F. CLAPP.

CAMAENA FORBESI n. sp. PLATE I.

Shell solid, globose, depressed, opaque, with numerous faint oblique growth-wrinkles throughout, faintly spirally striate only on the post-nepionic whorls; the ultimate whorl naples yellow with a narrow russet line at the suture, a russet band between the suture and the periphery and a broader russet band just below the periphery, the bands becoming fainter on the earlier whorls; whorls five, consisting of two nepionic and three post-nepionic, slightly convex, the last slightly deflexed, suture very slightly impressed, last whorl rounded; peristome expanded, light purple drab, excepting where the light sutural zone terminates; the slightly thickened and reflexed edge walnut brown, margins connected by a very thin transparent